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CLAIMS

[Utility model registration claim]

[Claim 1] The contact section housing 2 for holding the contact section 11 of a terminal 10, While having the tail part housing 3 for holding the tail part 12 of the terminal 10 of another object with this contact section housing and equipping the above-mentioned contact section housing 2 with the contact section 11 of each terminal 10 of two or more terminals Equip the tail part housing 3 with a tail part 12, and the piece 22 of press fit near the tail part 12 is pressed fit in the stop slot 28 of the tail part housing 3. The tip 21 of the piece 18 of flexible connection section protection which extended in the electrical connector for printed-circuit-board connection which the flexible connection section 13 is formed between the contact section 11 of each terminal 10, and a tail part 12, and changes from between the contact section 11 of; above-mentioned each terminal 10, and the flexible connection sections 13 The electrical connector for printed-circuit-board connection characterized by making them insert in the insertion slot 30 formed in the tail part housing 3 in an ordinary state as the walls 31 and 32 of the insertion slot 30 concerned were not contacted.

[Claim 2] The electrical connector for printed-circuit-board connection given in claim 1 term characterized by making it the edge posterior part walls 7A and 7B of the above-mentioned contact section housing 2 contact the stoppers 9A and 9B which formed in posterior part right and left of the above-mentioned tail part housing 3.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed explanation of a design]

[0001]

[Industrial Application]

This design is related with the electrical connector for printed-circuit-board connection.

[0002]

[Description of the Prior Art]

In order to connect the conductor of a printed circuit board and the conductor of the printed circuit board of another side which are one side as everyone knows, the electrical connector for printed-circuit-board connection is used. In this case, on the other hand, the mutual location of the printed circuit board of another side may shift to the location decided beforehand on use. The so-called pitch gap may be produced.

Therefore, this kind of electrical connector has the structure which can absorb this pitch gap in the case of fitting.

[0003]

If a terminal is specifically divided into the contact section and a tail part paying attention to the terminal used for this kind of electrical connector, the part which connects between them is constituted as the flexible connection section. This flexible joining segment is usually weakly designed in reinforcement, in order to make small the load which the variation rate at the time of pitch gap absorption takes.

Therefore, the device it is made not to give a damage to this flexible joining segment when this flexible joining segment displaces for pitch gap absorption, and the device which enables it to secure location **** of the tail part of each terminal firmly when this electrical connector is mounted in a printed circuit board are needed.

[0004]

Then, when the conventional technique in these points is seen, 1 of the conventional technique is the thing of structure which divides into contact section housing and tail part housing housing with which it is equipped with the terminal, connects during this period by connection mold with flexibility, makes pitch gap absorbable, prepares a peg in tail part housing in one further, and planned location **** of the tail part of a terminal.

2 of the conventional technique connects between the contact section of a terminal, and a tail part in the flexible connection section. Accomplish with the structure of stopping the stop section formed in the upper part of the tail part of a terminal when equipping housing with this terminal to the crevice of housing, and pitch gap is made absorbable. And it is the thing of the structure which fits covering into the terminal contact section side of housing, plans location **** of a terminal tail part, extracts the above-mentioned covering to a printed circuit board, and discards this electrical connector after soldering to it.

3 of the conventional technique puts the contact section and the tail part of a terminal in a row in the flexible connection section. Equip contact section housing with the contact section of this terminal, and an another side tail part is stopped to the mold for a tail stop. And while preparing a peg in contact section housing, growing into it and enabling absorption of pitch gap in the flexible connection section of the above-mentioned terminal It is the technique of the structure which aims at protection of the flexible connection section by the above-mentioned peg, and plans location **** of the tail part of a terminal in the above-mentioned mold for a tail stop, and cuts the connection section between the above-mentioned-after assembly contact section housing of this electrical connector, and the mold for a tail stop.

4 of the conventional technique divides the whole electrical connector into inside-and-outside housing respectively located in inside and outside seen from a flat surface. Namely, inside housing for terminal contact section maintenance, While dividing into housing holding an outside terminal tail and enabling pitch gap absorption by this It is what attaches a nail, and prevents float going up of housing for terminal contact section maintenance, and is planning location **** of a terminal with terminal tail maintenance housing. It is the thing of the structure which cuts the connection section between housing for the above-mentioned-after assembly contact section maintenance, and terminal tail maintenance housing.

5 of the conventional technique divides the whole electrical connector into inside-and-outside housing respectively

located in inside and outside section from a flat surface. Namely, inside housing terminal contact section maintenance, Divide into outside housing for a tail stop, and between these two housing is put in a row in the connection section with flexibility. while making pitch gap absorbable -- float going up of housing for terminal contact section maintenance -- preventing -- and the location appearance of a tail part -- carrying out -- it is the thing of the structure currently performed with the above-mentioned housing for a tail stop.

[0005]

[Problem(s) to be Solved by the Device]

since each above-mentioned **, although a technique has a useful point separately, as a result of these people's adding some examination, in the following point, it has had the solution technical problem.

That is, on the other hand, the mutual location of the printed circuit board of another side has shifted to the location specified beforehand, and there is a problem that the displacement load when absorbing pitch gap at the time of fitting is comparatively large. 1 of the conventional technique and 5 of the conventional technique correspond to this especially.

Furthermore, the DETTO tooth space on a printed circuit board is size.

1 of the conventional technique, 3 of the conventional technique, and 4 of the conventional technique correspond to this especially.

In addition, it does not become a knot resource, either, while there is use of addition components, or partial components need the to be discarded and a processing man day and a man day with a group serve as size. Especially 2 of the conventional technique corresponds to this.

[0006]

[Objects of the Invention]

therefore, the place made into the purpose of this design not to mention making more into smallness the displacement load of the terminal flexible connection section in case the mutual location of the printed circuit board of another side has shifted to the location specified beforehand and absorbs pitch gap on the other hand at the time of fitting It carries out without [without it produces a DETTO tooth space especially on a printed circuit board, and] requiring addition components specially. while preventing damage on the flexible connection section of the terminal for absorbing pitch gap, namely, being able to aim at protection -- the location appearance of a terminal tail part -- also carrying out -- it is in offering the electrical connector for printed-circuit-board connection which can be planned easily.

[0007]

[Means for Solving the Problem]

In order to attain the above-mentioned purpose, this design has the following technical means. Namely, if this is explained using the sign in the accompanying drawing corresponding to an example The contact section housing 2 for this design to hold the contact section 11 of a terminal 10, While having the tail part housing 3 for holding the tail part 12 of the terminal 10 of another object with this contact section housing and equipping the above-mentioned contact section housing 2 with the contact section 11 of each terminal 10 of two or more terminals Equip the tail part housing 3 with a tail part 12, and the piece 22 of press fit near the tail part 12 is pressed fit in the stop slot 28 of the tail part housing 3. In the electrical connector for printed-circuit-board connection which the flexible connection section 13 is formed between the contact section 11 of each terminal 10, and a tail part 12, and changes; It is the electrical connector for printed-circuit-board connection characterized by making them insert the tip 21 of the piece 18 of flexible connection section protection which extended from between the contact section 11 of each above-mentioned terminal 10, and the flexible connection sections 13 in the insertion slot 30 formed in the tail part housing 3 in an ordinary state as the walls 31 and 32 of the insertion slot 30 concerned were not contacted.

[0008]

[Function]

If based on the above-mentioned configuration, absorption of pitch gap of the printed circuit board of another side, i.e., when the location of the electrical connector of another side has shifted on the other hand, will be carried out by the flexible connection section 13 of a terminal 10 also at the time of fitting. That is, since it does not have the large plastics mold part of a displacement load, a displacement load is small. and the location appearance of the tail part 12 of a terminal 10 -- carrying out -- the tip 23 of the piece 22 of press fit is firmly secured in the stop slot 28 of the tail part housing 3 by carrying out the press fit stop.

Although you are going to make it especially transform the flexible connection section 13 upwards when fitting connection of the electrical connector 35 of another side is made to this electrical connector 1 (i.e., when the force from fitting is added to the terminal 10 of this electrical connector 1), the surroundings at the tip 21 of the piece 18 of flexible connection section protection run against the peripheral wall 32 of the insertion slot 30, and control the above-mentioned deformation. On the contrary, although the force of the direction of anti-fitting joins the terminal 10 of this electrical connector 1 and the flexible connection section 13 tends to be superfluously transformed when separating the electrical connector 35 of another side from this electrical connector 1, the tip 21 of the piece 18 of flexible connection section protection runs against the bottom wall 31 of the insertion slot 30, and controls the above-

mentioned deformation.

[0009]

[Example]

Next, the example of this design is explained to a detail according to an accompanying drawing.

If the whole electrical connector 1 of this example is first explained according to drawing 1 - drawing 7, in this electrical connector 1, the contact section housing 2 and it have the tail part housing 3 of another object. In the case of this example, the contact section housing 2 is located on the top face 8 of the tail part housing 3 so that clearly from drawing 5, drawing 6, and drawing 7.

While the space 4 which equips the above-mentioned contact section housing 2 with the contact section of a terminal is formed, the space 5 which also equips the tail part housing 3 with the tail part of a terminal is formed.

And the aerofoils 6A and 6B projected ahead are really formed in right and left of the front face of the contact section housing 2 as most clearly shown in drawing 1. Furthermore, the edge posterior part walls 7A and 7B are formed in the right and left of each of the rear face of this contact section housing 2, and it changes with the structure which can contact the posterior part stoppers 9A and 9B each of these posterior part walls 7A and 7B were made to set up in one by the posterior part right and left of each of the top face 8 of the tail part housing 3.

[0010]

Next, according to drawing 8, drawing 9, and drawing 10, the terminal 10 with which this electrical connector 1 is equipped is explained.

A terminal 10 has the contact section 11 and a tail part 12.

The contact section 11 has constituted the male pin configuration in this example. And the above-mentioned contact section 11 and the above-mentioned tail part 12 are connected by the flexible connection section 13 in one. This flexible connection section 13 has shown that with which between the U character-like section 14 which puts in a row the two U character-like sections 14 which have become sideways in drawing to a serial, and is located up in drawing 9, and the contact sections 11 is connected by the bay 15 in this example.

[0011]

And the piece 18 of flexible connection section protection is made to extend below from the posterior part 17 of the contact section 11 by 16 between the contact section 11 and the flexible connection sections 13, and the twist concrete target. This piece 18 of flexible connection section protection consists of the vertical section 19 perpendicularly prolonged in drawing 9, and the horizontal level 20 which stands in a row in it at one, and is prolonged in parallel to the contact section 11, and the point of a horizontal level 20 is divided as a tip 21.

[0012]

On the other hand, the piece 22 of press fit is formed so that it may become parallel to the bay 15 which constitutes the above-mentioned flexible connection section 13 near the above-mentioned tail part 12, and the tip 23 of the piece of press fit is lengthened to the place where the tip 21 of the horizontal level 20 of the piece 18 of flexible connection section protection has extended.

[0013]

It ** and, as for the sign 24, the contact press fit section 24 and the sign 25 in which it was formed for root Motobe [the above-mentioned contact section 11] up and down show the carrier of this terminal 10.

[0014]

Now, in order to equip the contact section housing 2 and the tail part housing 3 of an electrical connector 1 which mentioned above each terminal 10 shown by drawing 10 from above-mentioned drawing 8, it equips with the contact section 11 in the contact section wearing space 4 of the contact section housing 2 first so that clearly from drawing 6 and drawing 7, and as it projects from the inferior surface of tongue 26 of the tail part housing 3 to a lower part, the tail part housing 3 is equipped with a tail part 12. Under the present circumstances, the flexible connection section 13 of the above-mentioned terminal is located all over the posterior part space 27 of contact section housing.

[0015]

Although the tip 23 of the piece 22 of press fit is pressed fit in a place all over the stop slot 28 formed in the wall by the side of the front face of the tail part housing 3 The tip 21 of the horizontal level 20 which constitutes the piece 18 of flexible connection section protection prolonged to the up space 29 of the tail part housing 3 When inserted in the insertion slot 30 formed in the wall of the front face of the tail part housing 3, as the bottom wall 31 of an insertion slot and its peripheral wall 32 are not contacted, it is inserted in them in the ordinary state which does not require a load for this terminal 10 whole.

[0016]

It ** and the terminal 10 with which the terminal 10 with which housing is equipped with a tail part 12 so that it may become at mutual staggered arrangement, and a tail part 12 appears in the direction with drawing 6 near the wall by the side of before the tail part housing 3 is shown, and, as for the ***** terminal 10, a tail part 12 appears in the direction with drawing 7 near the posterior part side of the tail part housing 3 is shown in this one terminal 10 and it.

[0017]

Next, how to use this electrical connector 1 according to drawing 11 is explained.

In this drawing 11, the electrical connector 1 of one of these is mounted in one printed circuit board 33, the electrical connector 35 of another side is mounted in the printed circuit board 34 of another side, and, on the other hand, the place which the terminals 10 and 36 of two electrical connectors of another side have connected mutually is shown. When the location of the printed circuit board 34 of another side to one printed circuit board 33 had shifted somewhat to the location defined beforehand in the place, and are put in another way, and the mutual location of the terminal of the electrical connectors 1 and 35 of another side has shifted and the so-called pitch gap is produced on the other hand, the above-mentioned flexible connection section 13 absorbs pitch gap of flexible *****, and two electrical connectors make fitting connection. Under the present circumstances, the contact section housing 2 and the tail part housing 3 are another objects, and since only the flexible connection section 13 of a terminal is only flexible ****, the displacement load at the time of pitch gap absorption is smallness.

[0018]

and -- since, as for the tail part 12 of a terminal, the tip 23 of the piece 22 of press fit is pressed fit in the press fit slot 28 -- the location appearance of a tail part 12 -- carrying out -- it is secured firmly.

[0019]

Now, when the force of the direction X of fitting is applied to the contact section 11 of a terminal 10 when fitting in the electrical connector 35 of another side to the electrical connector 1 of one of these namely, although it is going to displace to above [which is shown with Sign Z], the surroundings at the tip 21 of the horizontal level 20 of the piece 18 of flexible connection section protection contact the peripheral wall 32 of the insertion slot 30, and, as for the flexible connection section 13, control the above-mentioned variation rate. Although the same thing tends to require the force of the direction Y of anti-fitting to the contact section 11 of a terminal 10 and tends to pull the flexible connection section 13 in the direction Y of anti-fitting too much from this electrical connector 1 when removing the electrical connector 35 of another side, a tip 21 contacts the bottom wall 31 of the insertion slot 30, and it controls this. That is, protection of the flexible connection section 13 accomplishes by collaboration of the piece 18 of flexible connection section protection, and the insertion slot 30. Since it is not a thing like the peg to which these two are stored or formed into the contact section housing 2 and the tail part housing 3, and ** also projects outside, while not building a DETTO tooth space on a printed circuit board, since it is not addition components, either, especially a man day with a group does not increase.

[0020]

When fitting in the electrical connector 35 of another side to the electrical connector 1 of one of these in a place, as shown in drawing 1 Since the right-and-left posterior part walls 7A and 7B of the contact section housing 2 of the electrical connector 1 of one of these contact the stoppers 9A and 9B in the right-and-left posterior part of the tail part housing 3 Namely, since the variation rate to the back of the superfluous contact section housing 2 is controlled, while the flexible connection section 13 of a terminal 10 is protected also according to this structure The motion is regulated even if the electrical connector 35 of another side tends to move to a longitudinal direction M superfluously in drawing 1 by the aerofoils 6A and 6B of the right and left formed in the contact section housing 2.

[0021]

What put in a row the U character-like section 14 which is contrary to the one U character-like section 14 as it ** and drawing 12 other than the above example shows the configuration of the flexible connection section 13 to the serial may be used.

[0022]

[Effect]

Not to mention the displacement load of the terminal flexible connection section when the mutual location of the printed circuit board of another side having shifted to the location specified beforehand on the other hand according to this design, and absorbing pitch gap at the time of fitting, as explained in full detail above being made more to smallness While being able to prevent damage on the flexible connection section of the terminal for carrying out without [without it produces a DETTO tooth space especially on a printed circuit board, and] requiring addition components specially, and absorbing pitch gap the location appearance of a terminal tail part -- also carrying out -- the electrical connector for printed-circuit-board connection which can be planned easily can be offered.

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TECHNICAL FIELD

[Industrial Application]

This design is related with the electrical connector for printed-circuit-board connection.

[0002]

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PRIOR ART

[Description of the Prior Art]

In order to connect the conductor of a printed circuit board and the conductor of the printed circuit board of another side which are one side as everyone knows, the electrical connector for printed-circuit-board connection is used.

In this case, on the other hand, the mutual location of the printed circuit board of another side may shift to the location decided beforehand on an activity. The so-called pitch gap may be produced.

Therefore, this kind of electrical connector has the structure which can absorb this pitch gap in the case of fitting.

[0003]

If a terminal is specifically divided into the contact section and a tail part paying attention to the terminal used for this kind of electrical connector, the part which connects between them is constituted as the flexible connection section.

This flexible joining segment is usually weakly designed in reinforcement, in order to make small the load which the variation rate at the time of pitch gap absorption takes.

Therefore, the device it is made not to give a damage to this flexible joining segment when this flexible joining segment displaces for pitch gap absorption, and the device which enables it to secure location **** of the tail part of each terminal firmly when this electrical connector is mounted in a printed circuit board are needed.

[0004]

Then, when the conventional technique in these points is seen, 1 of the conventional technique is the thing of structure which divides into contact section housing and tail part housing housing with which it is equipped with the terminal, connects during this period by the connection mould with flexibility, makes pitch gap absorbable, prepares a peg in tail part housing in one further, and planned location **** of the tail part of a terminal.

2 of the conventional technique connects between the contact section of a terminal, and a tail part in the flexible connection section. Accomplish with the structure of stopping the stop section formed in the upper part of the tail part of a terminal when equipping housing with this terminal to the crevice of housing, and pitch gap is made absorbable. And it is the thing of the structure which fits covering into the terminal contact section side of housing, plans location **** of a terminal tail part, extracts the above-mentioned covering to a printed circuit board, and discards this electrical connector after soldering to it.

3 of the conventional technique puts the contact section and the tail part of a terminal in a row in the flexible connection section. Equip contact section housing with the contact section of this terminal, and an another side tail part is stopped to the mould for a tail stop. And while preparing a peg in contact section housing, growing into it and enabling absorption of pitch gap in the flexible connection section of the above-mentioned terminal It is the technique of the structure which aims at protection of the flexible connection section by the above-mentioned peg, and plans location **** of the tail part of a terminal in the above-mentioned mould for a tail stop, and cuts the connection section between the assembly backward above-mentioned contact section housing of this electrical connector, and the mould for a tail stop.

4 of the conventional technique divides the whole electrical connector into inside-and-outside housing respectively located in inside and outside seen from a flat surface. Namely, inside housing for terminal contact section maintenance, While dividing into housing holding an outside terminal tail and enabling pitch gap absorption by this It is that in which nail is attached, and float going up of housing for terminal contact section maintenance is prevented, and location **** of drawing of a terminal is with terminal tail maintenance housing. It is the thing of the structure which cuts the connection section between housing for the assembly backward above-mentioned contact section maintenance, and terminal tail maintenance housing.

5 of the conventional technique divides the whole electrical connector into inside-and-outside housing respectively located in inside and outside seen from a flat surface. Namely, inside housing for terminal contact section maintenance, Divide into outside housing for a tail stop, and between these two housing is put in a row in the connection section with

flexibility. while making pitch gap absorbable -- float going up of housing for initial contact section maintenance -- preventing -- and the location appearance of a tail part -- carrying out -- it is the thing of the structure currently performed with the above-mentioned housing for a tail stop.
[0005]

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EFFECT OF THE INVENTION

[Effect]

Not to mention the displacement load of the terminal flexible connection section when the mutual location of the printed circuit board of another side having shifted to the location specified beforehand on the other hand according to this design, and absorbing pitch gap at the time of fitting, as explained in full detail above being made more to smallness While being able to prevent breakage on the flexible connection section of the terminal for carrying out without [without it produces a DETTO tooth space especially on a printed circuit board, and] requiring addition components specially, and absorbing pitch gap the location appearance of a terminal tail part -- also carrying out -- the electrical connector for printed-circuit-board connection which can be planned easily can be offered.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Device]

since each above-mentioned **, although a technique has a useful point separately, as a result of these people's adding some examination, in the following point, it has had the solution technical problem.

That is, on the other hand, the mutual location of the printed circuit board of another side has shifted to the location specified beforehand, and there is a problem that the displacement load when absorbing pitch gap at the time of fitting is comparatively large. 1 of the conventional technique and 5 of the conventional technique correspond to this especially. Furthermore, the DETTO tooth space on a printed circuit board is size.

1 of the conventional technique, 3 of the conventional technique, and 4 of the conventional technique correspond to this especially.

In addition, it does not become a knot resource, either, while there is an activity of addition components, or partial components need the to be discarded and processing manday and manday with a group serve as size. Especially 2 of the conventional technique corresponds to this.

[0006]

[Objects of the Invention]

therefore, the place made into the object of this design not to mention making more into smallness the displacement load of the terminal flexible connection section in case the mutual location of the printed circuit board of another side has shifted to the location specified beforehand and absorbs pitch gap on the other hand at the time of fitting It carries out without [without it produces a DETTO tooth space especially on a printed circuit board, and] requiring addition components specially. while preventing breakage on the flexible connection section of the terminal for absorbing pitch gap, namely, being able to aim at protection -- the location appearance of a terminal tail part -- also carrying out -- it is in offering the electrical connector for printed-circuit-board connection which can be planned easily.

[0007]

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MEANS

[Means for Solving the Problem]

In order to attain the above-mentioned object, this design has the following technical means. Namely, if this is explained using the sign in the accompanying drawing corresponding to an example The contact section housing 2 for this design to hold the contact section 11 of a terminal 10, While having the tail part housing 3 for holding the tail part 12 of the terminal 10 of another object with this contact section housing and equipping the above-mentioned contact section housing 2 with the contact section 11 of each terminal 10 of two or more terminals Equip the tail part housing 3 with a tail part 12, and the press fit piece 22 near the tail part 12 is pressed fit in the stop slot 28 of the tail part housing 3. In the electrical connector for printed-circuit-board connection which the flexible connection section 13 is formed between the contact section 11 of each terminal 10, and a tail part 12, and changes;

It is the electrical connector for printed-circuit-board connection characterized by making them insert the head 21 of the flexible connection section protection piece 18 which extended from between the contact section 11 of each above-mentioned terminal 10, and the flexible connection sections 13 in the insertion slot 30 formed in the tail part housing 3 in an ordinary state as the walls 31 and 32 of the insertion slot 30 concerned were not contacted.

[0008]

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OPERATION

[Function]

If based on the above-mentioned configuration, absorption of pitch gap of the printed circuit board of another side, i.e., when the location of the electrical connector of another side has shifted on the other hand, will be carried out by the flexible connection section 13 of a terminal 10 also at the time of fitting. That is, since it does not have the large plastics mould part of a displacement load, a displacement load is small. and the location appearance of the tail part 12 of a terminal 10 -- carrying out -- the head 23 of the press fit piece 22 is firmly secured in the stop slot 28 of the tail part housing 3 by carrying out the press fit stop.

Although you are going to make it especially transform the flexible connection section 13 upwards when fitting connection of the electrical connector 35 of another side is made to this electrical connector 1 (i.e., when the force from fitting is added to the terminal 10 of this electrical connector 1), the surroundings at the head 21 of the flexible connection section protection piece 18 run against the peripheral wall 32 of the insertion slot 30, and control the above-mentioned deformation. On the contrary, although the force of the direction of anti-fitting joins the terminal 10 of this electrical connector 1 and the flexible connection section 13 tends to be superfluously transformed when separating the electrical connector 35 of another side from this electrical connector 1, the head 21 of the flexible connection section protection piece 18 runs against the bottom wall 31 of the insertion slot 30, and controls the above-mentioned deformation.

[0009]

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EXAMPLE

[Example]

Next, the example of this design is explained to a detail according to an accompanying drawing.

If the whole electrical connector 1 of this example is first explained according to drawing 1 - drawing 7, in this electrical connector 1, the contact section housing 2 and it have the tail part housing 3 of another object. In the case of this example, the contact section housing 2 is located on the top face 8 of the tail part housing 3 so that clearly from drawing 5, drawing 6, and drawing 7.

While the space 4 which equips the above-mentioned contact section housing 2 with the contact section of a terminal is formed, the space 5 which also equips the tail part housing 3 with the tail part of a terminal is formed.

And the aerofoils 6A and 6B which projected ahead are really formed in right and left of the front face of the contact section housing 2 as most clearly shown in drawing 1. Furthermore, the edge back walls 7A and 7B are formed in the right and left of each of the rear face of this contact section housing 2, and it changes with the structure which can contact the back stoppers 9A and 9B each of these back walls 7A and 7B were made to set up in one by the back right and left of each of the top face 8 of the tail part housing 3.

[0010]

Next, according to drawing 8, drawing 9, and drawing 10, the terminal 10 with which this electrical connector 1 is equipped is explained.

A terminal 10 has the contact section 11 and a tail part 12.

The contact section 11 has constituted the male pin configuration in this example. And the above-mentioned contact section 11 and the above-mentioned tail part 12 are connected by the flexible connection section 13 in one. This flexible connection section 13 has shown that with which between the U character-like section 14 which puts in a row the two U character-like sections 14 which have become sideways in drawing to a serial, and is located up in drawing 9, and the contact sections 11 is connected by the bay 15 in this example.

[0011]

And the flexible connection section protection piece 18 is made to extend below from the back 17 of the contact section 11 by 16 between the contact section 11 and the flexible connection sections 13, and the twist concrete target. This flexible connection section protection piece 18 consists of the vertical section 19 vertically prolonged in drawing 9, and the horizontal level 20 which stands in a row in it at one, and is prolonged in parallel to the contact section 11, and the point of a horizontal level 20 is divided as a head 21.

[0012]

On the other hand, the press fit piece 22 is formed so that it may become parallel to the bay 15 which constitutes the above-mentioned flexible connection section 13 near the above-mentioned tail part 12, and the head 23 of the press fit piece is lengthened to the place where the head 21 of the horizontal level 20 of the flexible connection section protection piece 18 has extended.

[0013]

It ** and, as for the sign 24, the contact press fit section 24 and the sign 25 in which the bottom part of the above-mentioned contact section 11 was formed up and down show the carrier of this terminal 10.

[0014]

Now, in order to equip the contact section housing 2 and the tail part housing 3 of an electrical connector 1 which mentioned above each terminal 10 shown by drawing 10 from above-mentioned drawing 8, it equips with the contact section 11 in the contact section wearing space 4 of the contact section housing 2 first so that clearly from drawing 6 and drawing 7, and as it projects from the underside 26 of the tail part housing 3 to a lower part, the tail part housing 3 is equipped with a tail part 12. Under the present circumstances, the flexible connection section 13 of the above-mentioned terminal is located all over the back space 27 of contact section housing.

[0015]

Although the head 23 of the press fit piece 22 is pressed fit in a place all over the stop slot 28 formed in the wall by the side of the front face of the tail part housing 3 The head 21 of the horizontal level 20 which constitutes the

flexible connection section protection piece 18 prolonged to the up space 29 of the tail part housing 3. When inserted in the insertion slot 30 formed in the wall of the front face of the tail part housing 3, as the bottom wall 31 of an insertion slot and its peripheral wall 32 are not contacted, it is inserted in them in the ordinary state which does not require a load for this terminal 10 whole.

[0016]

It ** and the terminal 10 with which the terminal 10 with which housing is equipped with a tail part 12 so that it may become at mutual staggered arrangement, and a tail part 12 appears in the direction with drawing 6 near the wall by the side of before the tail part housing 3 is shown, and, as for the ***** terminal 10, a tail part 12 appears in the direction with drawing 7 near the back side of the tail part housing 3 is shown in this one terminal 10 and it.

[0017]

Next, how to use this electrical connector 1 according to drawing 11 is explained.

In this drawing 11, the electrical connector 1 of one of these is mounted in one printed circuit board 33, the electrical connector 35 of another side is mounted in the printed circuit board 34 of another side, and, on the other hand, the place which the terminals 10 and 36 of two electrical connectors of another side have connected mutually is shown. When the location of the printed circuit board 34 of another side to one printed circuit board 33 had shifted somewhat to the location defined beforehand in the place, and are put in another way, and the mutual location of the terminal of the electrical connectors 1 and 35 of another side has shifted and the so-called pitch gap is produced on the other hand, the above-mentioned flexible connection section 13 absorbs pitch gap of flexible *****, and two electrical connectors make fitting connection. Under the present circumstances, the contact section housing 2 and the tail part housing 3 are another objects, and since only the flexible connection section 13 of a terminal is only flexible ****, the displacement load at the time of pitch gap absorption is smallness.

[0018]

and -- since, as for the tail part 12 of a terminal, the head 23 of the press fit piece 22 is pressed fit in the press fit slot 28 -- the location appearance of a tail part 12 -- carrying out -- it is secured firmly.

[0019]

Now, when the force of the direction X of fitting is applied to the contact section 11 of a terminal 10 when fitting in the electrical connector 35 of another side to the electrical connector 1 of one of these namely, although it is going to displace to above [which is shown with Sign Z], the surroundings at the head 21 of the horizontal level 20 of the flexible connection section protection piece 18 contact the peripheral wall 32 of the insertion slot 30, and, as for the flexible connection section 13, control the above-mentioned variation rate. Although the same thing tends to require the force of the direction Y of anti-fitting to the contact section 11 of a terminal 10 and tends to pull the flexible connection section 13 in the direction Y of anti-fitting too much from this electrical connector 1 when removing the electrical connector 35 of another side, a head 21 contacts the bottom wall 31 of the insertion slot 30, and it controls this. That is, protection of the flexible connection section 13 accomplishes by collaboration of the flexible connection section protection piece 18 and the insertion slot 30. Since it is not a thing like the peg to which these two are stored or formed into the contact section housing 2 and the tail part housing 3, and ** also projects outside, while not building a DETTO tooth space on a printed circuit board, since it is not addition components, either, especially manday with a group does not increase.

[0020]

When fitting in the electrical connector 35 of another side to the electrical connector 1 of one of these in a place, as shown in drawing 1 Since the right-and-left back walls 7A and 7B of the contact section housing 2 of the electrical connector 1 of one of these contact the stoppers 9A and 9B in the left right rear section of the tail part housing 3. Namely, since the variation rate to the back of the superfluous contact section housing 2 is controlled, while the flexible connection section 13 of a terminal 10 is protected also according to this structure. The motion is regulated even if the electrical connector 35 of another side tends to move to a longitudinal direction M superfluously in drawing 1 by the aerofoils 6A and 6B of the right and left formed in the contact section housing 2.

[0021]

What put in a row the U character-like section 14 which is the one U character-like section 14 and reverse as it ** and drawing 12 other than the above example shows the configuration of the flexible connection section 13 to the serial may be used.

[0022]

[Translation done.]

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the top view showing an example of the electrical connector of this design.

[Drawing 2] It is the front view of an electrical connector shown in drawing 1.

[Drawing 3] It is the bottom view of an electrical connector shown in drawing 1.

[Drawing 4] It is the rear view of an electrical connector shown in drawing 1.

[Drawing 5] It is the right side view of the electrical connector shown in drawing 1.

[Drawing 6] It is the sectional view which meets the A-A line of drawing 2.

[Drawing 7] It is the sectional view which meets the B-B line of drawing 2.

[Drawing 8] It is the top view of the terminal in the condition that the carrier was attached.

[Drawing 9] It is the right side view of the terminal in the condition that the carrier was attached.

[Drawing 10] It is the front view of the terminal in the condition that the carrier was attached.

[Drawing 11] It is the sectional view showing the place which is making fitting connection of the electrical connector of another side with which the printed circuit board of another side is equipped to the electrical connector of one example of this design with which one printed circuit board is equipped.

[Drawing 12] It is the sectional view showing other examples of the flexible connection section.

[Description of Notations]

1 Electrical Connector

2 Contact Section Housing

3 Tail Part Housing

4 Contact Section Wearing Space of Terminal

5 Tail Part Wearing Space of Terminal

6A, 6B Aerofoil

7A, 7B Back wall of an edge

8 Top Face of Tail Part Housing

9A, 9B Back stopper

10 Terminal

11 Contact Section

12 Tail Part

13 Flexible Connection Section

14 U Character-like Section

15 Bay

16 Between Contact Section and Flexible Connection Sections

17 Back of Contact Section

18 Flexible Connection Section Protection Piece

19 Vertical Section

20 Horizontal Level

21 Head

22 Press Fit Piece

23 Press Fit Piece Head

24 Contact Section Press Fit Section

25 Carrier

26 Underside of Tail Part Housing

27 Back Space of Contact Section Housing

28 Stop Slot

29 Up Space of Tail Part Housing

30 Insertion Slot

31 Insertion Groove Bottom Wall
32 Insertion Slot Peripheral Wall
X The direction of fitting
Y The outside dedirection
Z Above
M Longitudinal direction
33 One Printed Circuit Board
34 Printed Circuit Board of Another Side
35 Electrical Connector of Another Side
36 Metz Terminal of Electrical Connector of Another Side

[Translation done.]

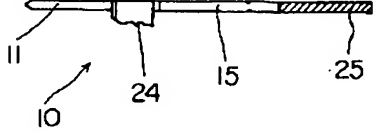
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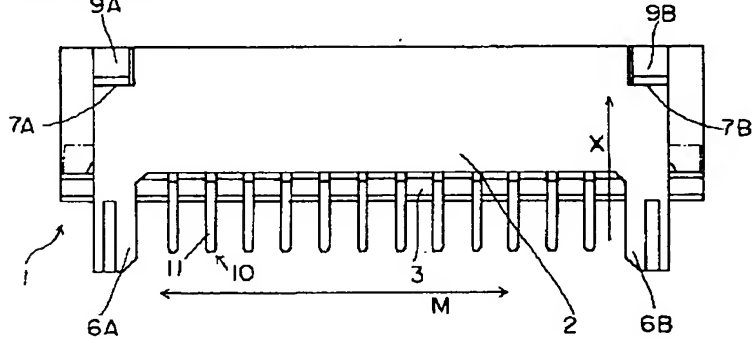
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DRAWINGS

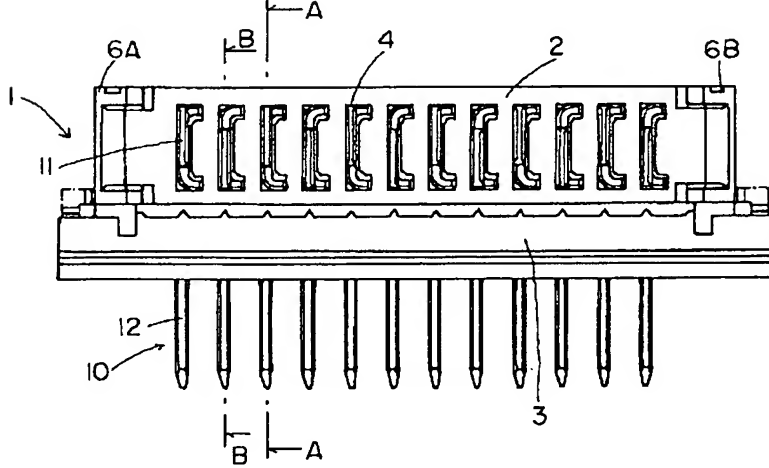
[Drawing 8]



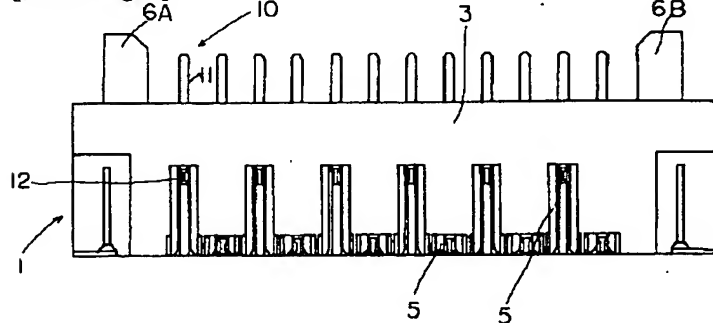
[Drawing 1]



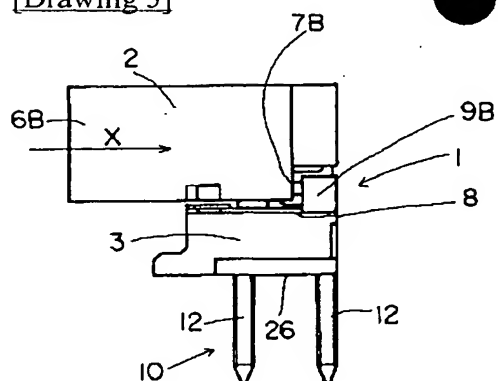
[Drawing 2]



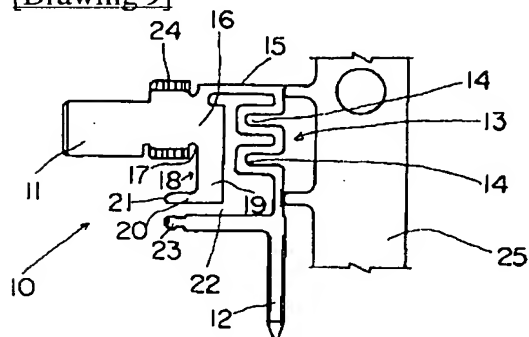
[Drawing 3]



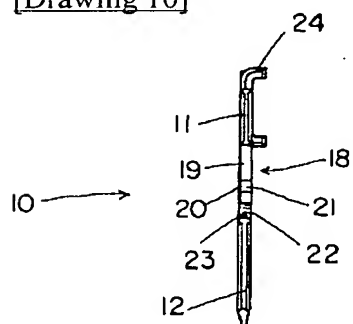
[Drawing 5]



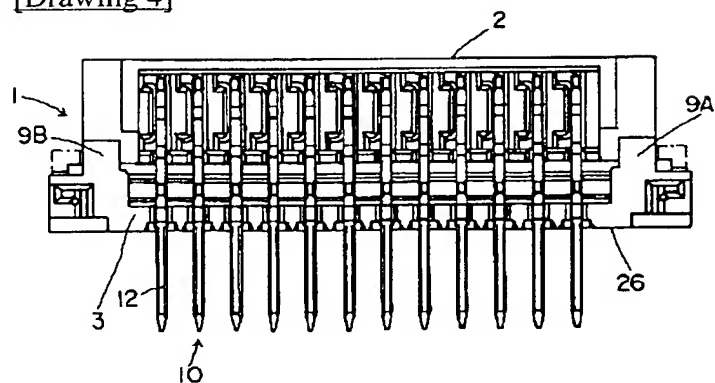
[Drawing 9]



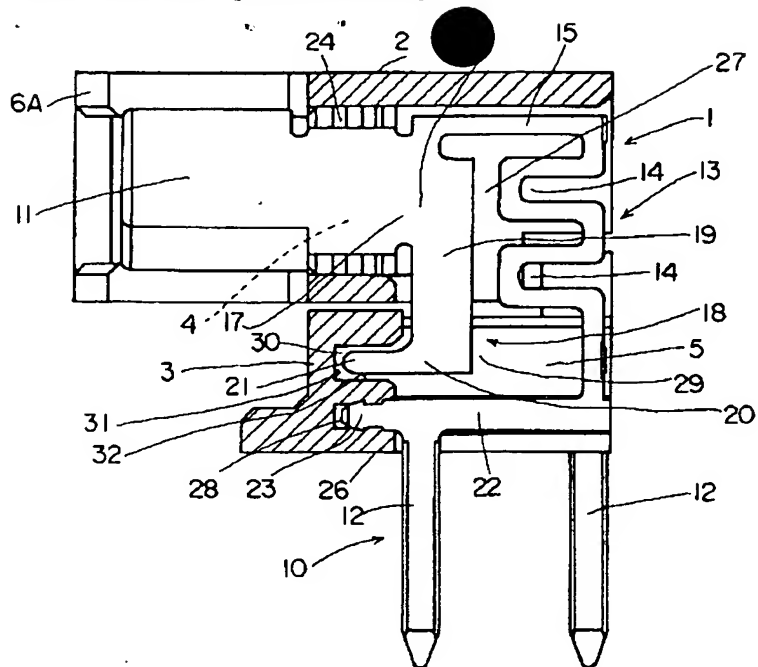
[Drawing 10]



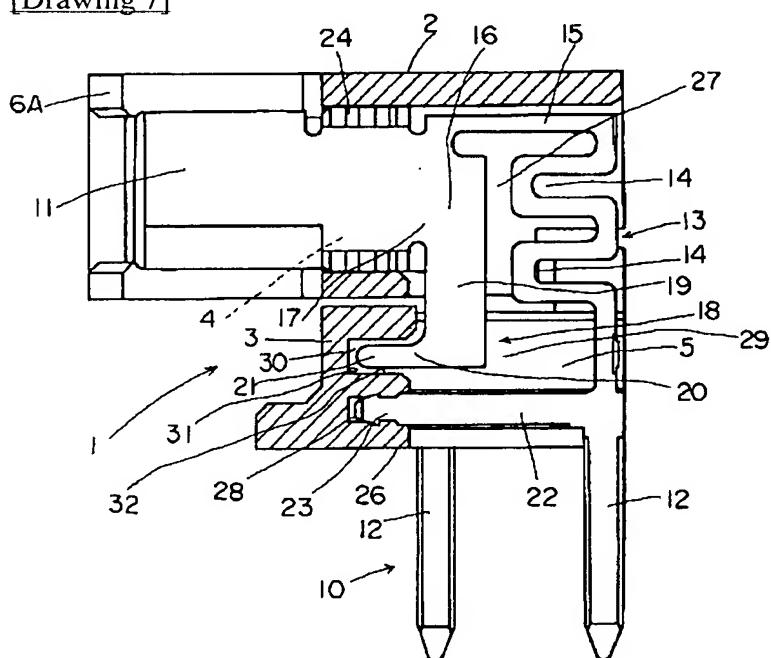
[Drawing 4]



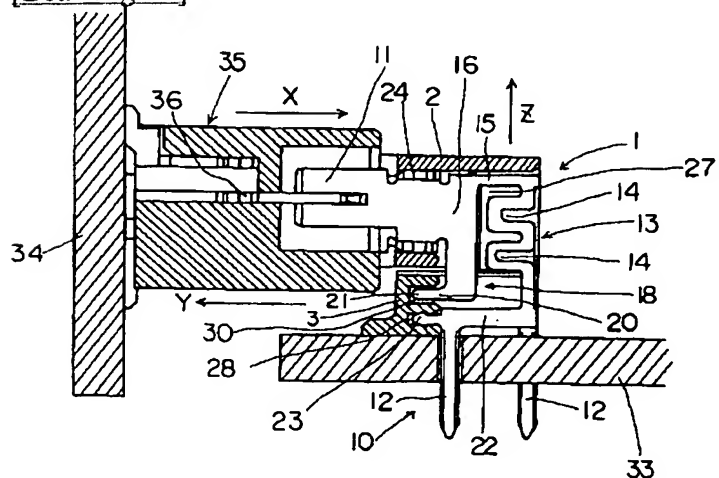
[Drawing 6]



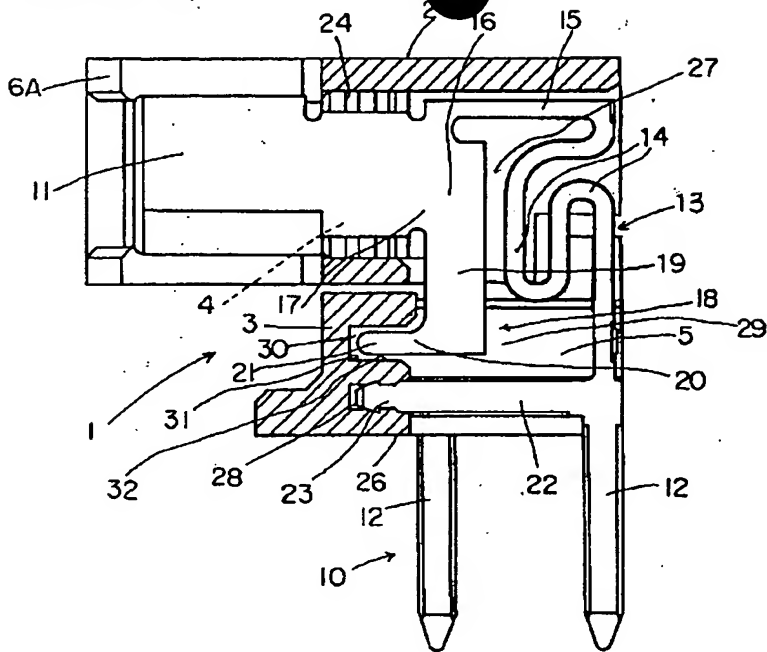
[Drawing 7]



[Drawing 11]



[Drawing 12]



[Translation done.]

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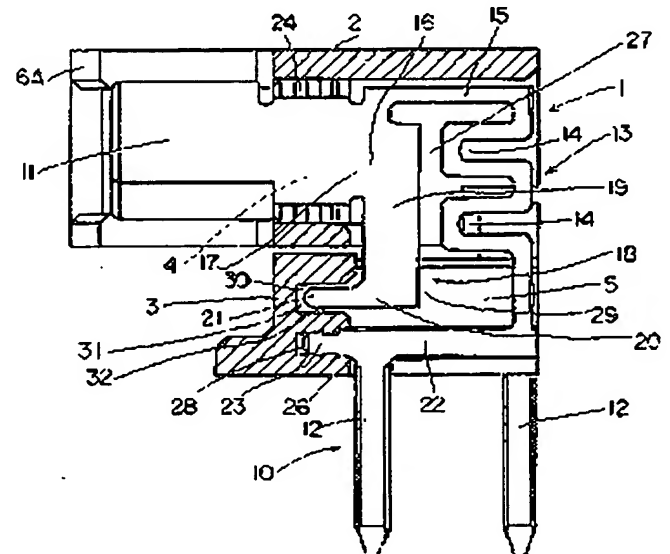
(74)代理人 弁理士 池田 宏

(54)【考案の名称】 プリント回路基板接続用電気コネクタ

(57)【要約】 (修正有)

【目的】プリント回路基板上にデットスペースを生ずることなく、且つ特別な付加部品を要することなく、ピッチズレを吸収する為の端子の可撓連結部の損傷を防止し、而も端子テール部の位置出しも容易に図れる。

【構成】コンタクト部ハウジング2と、別体のテール部ハウジング3を有し、複数端子の各々の端子10のコンタクト部11をコンタクト部ハウジング2に装着すると共に、テール部12をテール部ハウジング3に装着し、且つテール部12の近傍の圧入片22をテール部ハウジング3の係止溝28に圧入し、各端子10のコンタクト部11とテール部12間に可撓連結部13が形成され、各端子10のコンタクト部11と可撓連結部13の間から延出した可撓連結部保護片18の先端21をテール部ハウジング3に形成した挿入溝30に、當應に於いて挿入溝30の壁31、32に接触しないようにして挿入せ



(2)

実開平6-44063

1

2

【実用新案登録請求の範囲】

【請求項1】 端子10のコンタクト部11を保持する為のコンタクト部ハウジング2と、このコンタクト部ハウジングとは別体の端子10のテール部12を保持する為のテール部ハウジング3を有し、複数端子の各々の端子10のコンタクト部11を上記コンタクト部ハウジング2に装着すると共に、テール部12をテール部ハウジング3に装着し、且つテール部12の近傍の圧入片22をテール部ハウジング3の係止溝28に圧入し、各端子10のコンタクト部11とテール部12間に可撓連結部13が形成されて成るプリント回路基板接続用電気コネクタに於いて；上記各端子10のコンタクト部11と可撓連結部13の間から延出した可撓連結部保護片18の先端21をテール部ハウジング3に形成した挿入溝30に、常態に於いて当該挿入溝30の壁31、32に接触しないようにして挿入せしめた事を特徴とするプリント回路基板接続用電気コネクタ。

【請求項2】 上記コンタクト部ハウジング2の端部後部壁7A、7Bが、上記テール部ハウジング3の後部左右に形成したストッパー9A、9Bに当接するようにした事を特徴とする請求項1項記載のプリント回路基板接続用電気コネクタ。

【図面の簡単な説明】

【図1】 本考案の電気コネクタの一例を示す平面図である。

【図2】 図1に示した電気コネクタの正面図である。

【図3】 図1に示した電気コネクタの底面図である。

【図4】 図1に示した電気コネクタの背面図である。

【図5】 図1に示した電気コネクタの右側面図である。

【図6】 図2のA-A線に沿う断面図である。

【図7】 図2のB-B線に沿う断面図である。

【図8】 キャリアが付いた状態の端子の平面図である。

【図9】 キャリアが付いた状態の端子の右側面図である。

【図10】 キャリアが付いた状態の端子の正面図である。

【図11】 一方のプリント回路基板に装着されている本考案の一実施例の電気コネクタに対し、他方のプリント回路基板に装着されている他方の電気コネクタを嵌合接続している所を示す断面図である。

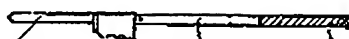
【図12】 可撓連結部の他の実施例を示す断面図である。

*【符号の説明】

1	電気コネクタ
2	コンタクト部ハウジング
3	テール部ハウジング
4	端子のコンタクト部装着空間
5	端子のテール部装着空間
6A、6B	翼
7A、7B	端部の後部壁
8	テール部ハウジングの上面
9A、9B	後部ストッパー
10	端子
11	コンタクト部
12	テール部
13	可撓連結部
14	U字状部
15	直線部
16	コンタクト部と可撓連結部の間
17	コンタクト部の後部
18	可撓連結部保護片
19	垂直部
20	水平部
21	先端
22	圧入片
23	圧入片先端
24	コンタクト部圧入部
25	キャリア
26	テール部ハウジングの下面
27	コンタクト部ハウジングの後部空間
28	係止溝
29	テール部ハウジングの上部空間
30	挿入溝
31	挿入溝底壁
32	挿入溝周壁
X	嵌合方向
Y	外脱方向
Z	上方向
M	左右方向
33	一方のプリント回路基板
34	他方のプリント回路基板
35	他方の電気コネクタ
36	他方の電気コネクタのメス端子

*

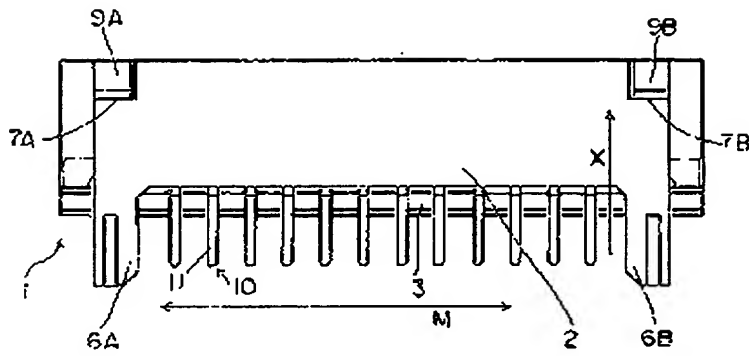
【図8】



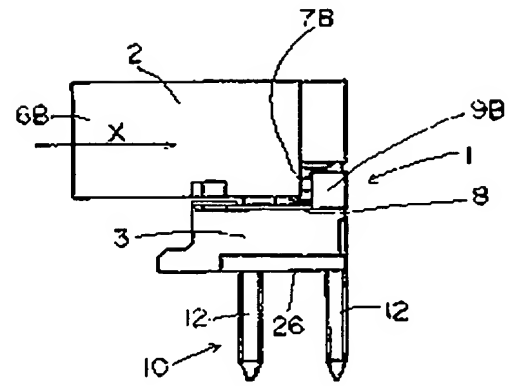
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実開平6-44063

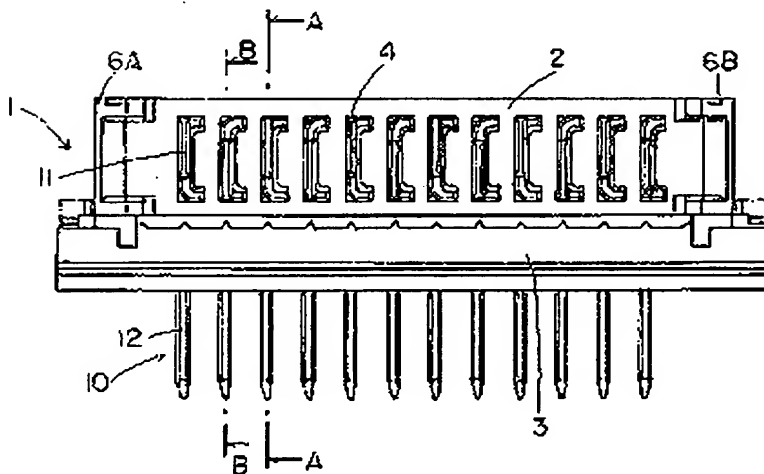
【図1】



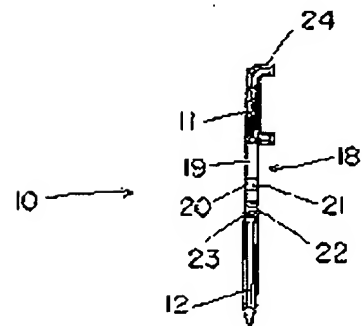
【図5】



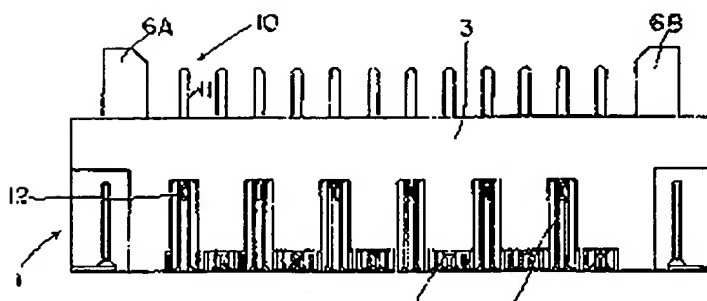
【図2】



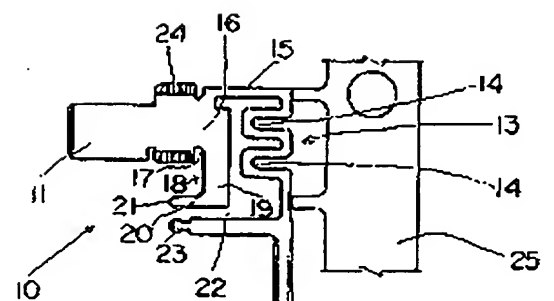
【図10】



【図3】



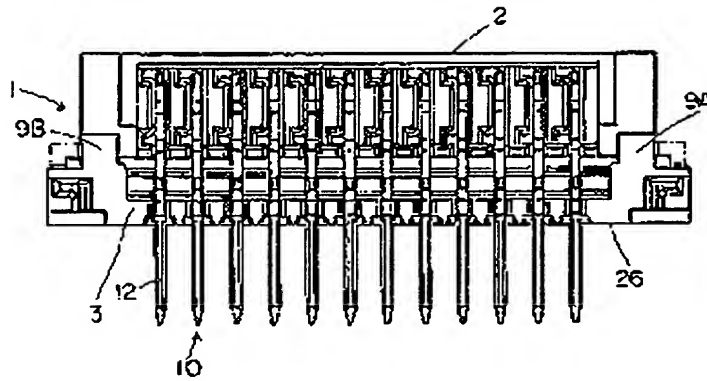
【図9】



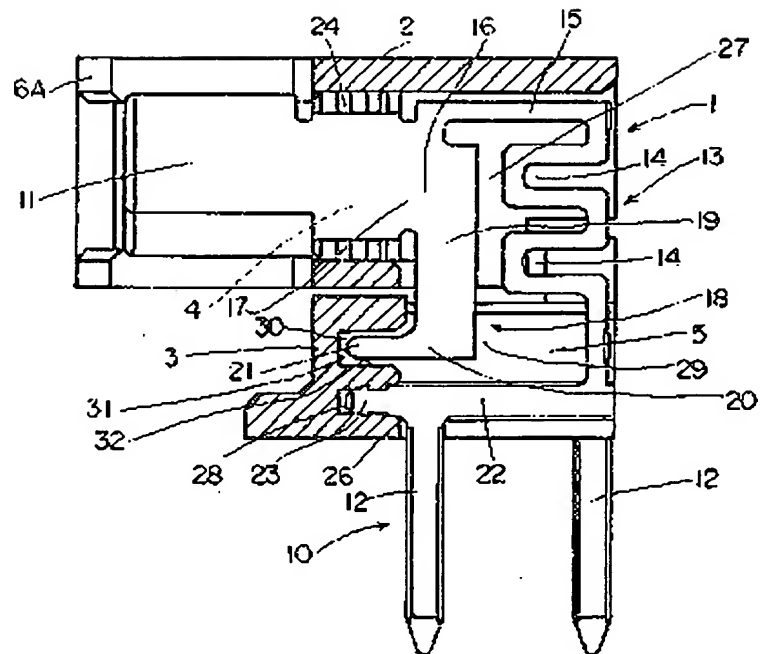
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実開平6-44063

【図4】



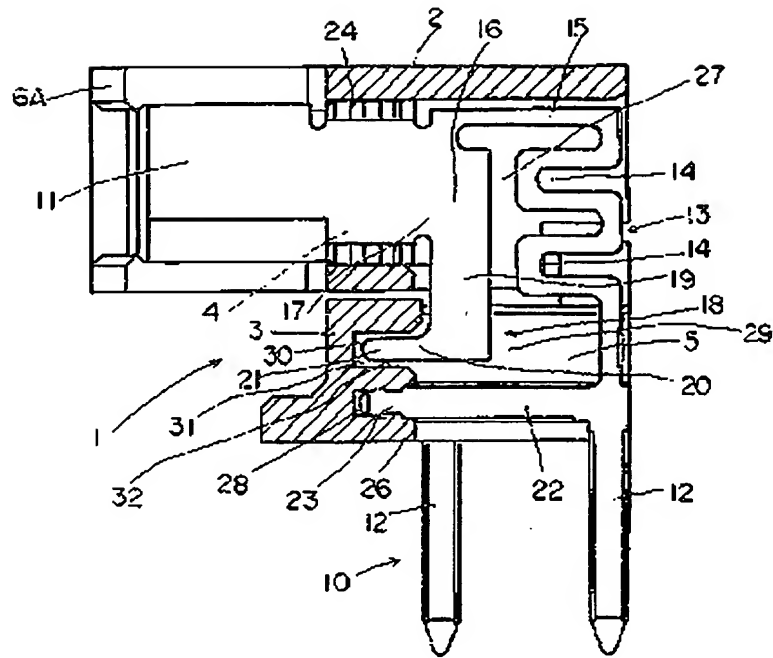
【図6】



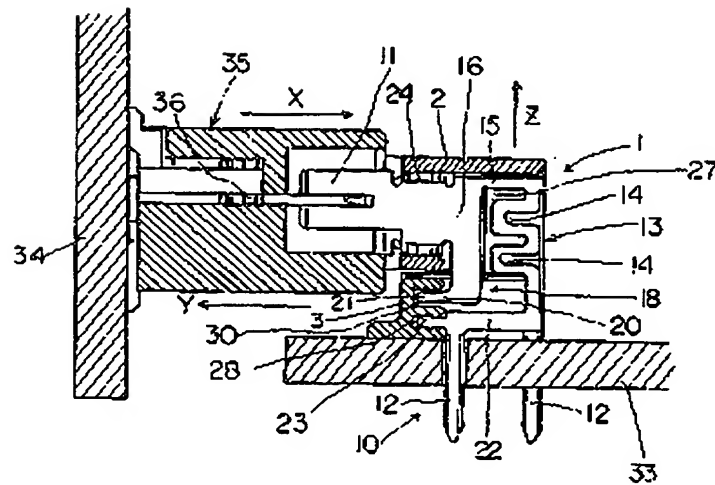
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実開平6-44063

【図7】



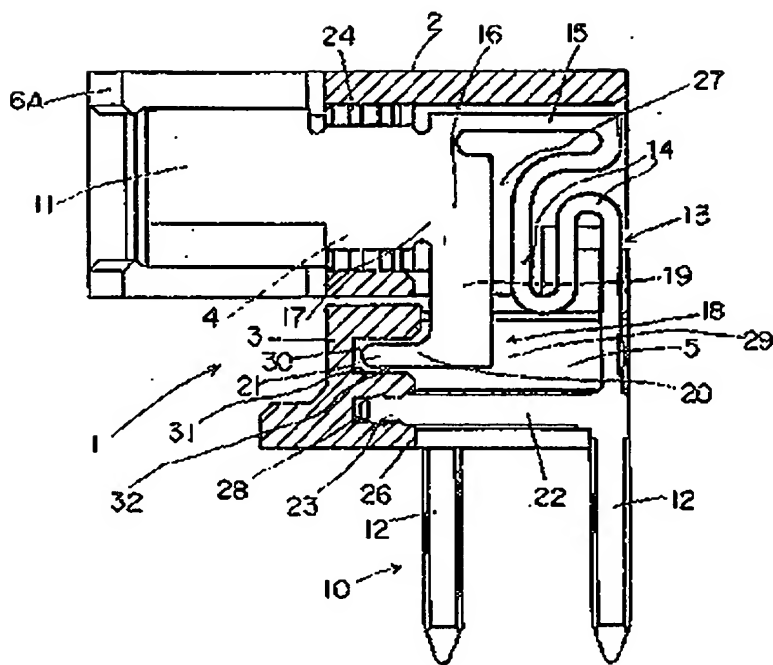
【図11】



(6)

実開平6-44063

【図12】



(7)

実開平6-44063

【考案の詳細な説明】**【0001】****【産業上の利用分野】**

本考案はプリント回路基板接続用電気コネクタに関する。

【0002】**【従来技術】**

周知の通り一方のプリント回路基板の導体と他方のプリント回路基板の導体とを接続する為に、プリント回路基板接続用電気コネクタが用いられている。この場合、使用上一方、他方のプリント回路基板の相互の位置が予め決められた位置に対してズレることがある。いわゆるピッチズレを生ずることがある。従ってこの種の電気コネクタは、嵌合の際このピッチズレを吸収できる構造を有している。

【0003】

具体的には、この種の電気コネクタに使用される端子に着目し、端子をコンタクト部とテール部に分けると、それらの間を連結する部分が可撓連結部として構成されている。

この可撓連結部分はピッチズレ吸収時の変位に要する荷重を小さくする為に通常強度的に弱く設計されている。

従ってピッチズレ吸収の為にこの可撓連結部分が変位した時、この可撓連結部分にダメージを与えないようにする工夫と、この電気コネクタをプリント回路基板に実装する時、各端子のテール部の位置出しをしっかりと確保できるようにする工夫が必要とされている。

【0004】

そこでこれらの点に於ける従来技術をみると、従来技術の1は、端子が装着されているハウジングをコンタクト部ハウジングとテール部ハウジングに分かれ、この間を可撓性のある連結モールドで連結してピッチズレを吸収可能とし、更にテール部ハウジングに一体的にバグを設け、端子のテール部の位置出しを図

(8)

実開平6-44063

端子をハウジングに装着する時端子のテール部の上部に形成された係止部をハウジングの凹部に係止する構造と成してピッチズレを吸収可能とし、且つハウジングの端子コンタクト部側にカバーを嵌合し、端子テール部の位置出しを図り、この電気コネクタをプリント回路基板に半田付後、上記のカバーを抜き去り廃棄する構造のものである。

従来技術の3は、端子のコンタクト部とテール部を可撓連結部で連ね、この端子のコンタクト部をコンタクト部ハウジングに装着し、他方テール部をテール係止用のモールドに係止し、且つコンタクト部ハウジングにベグを設けて成るものであり、上記端子の可撓連結部でピッチズレを吸収可能とすると共に、上記ベグにより可撓連結部の保護を図り、且つ上記テール係止用モールドにて端子のテール部の位置出しを図り、この電気コネクタのアッセンブリ後上記コンタクト部ハウジングとテール係止用モールドの間の連結部をカットする構造の技術である。

従来技術の4は、電気コネクタ全体を平面からみて内と外に各々位置する内外ハウジングに分ち、即ち内側の端子コンタクト部保持用ハウジングと、外側の端子テールを保持するハウジングに分ち、これによりピッチズレ吸収可能とすると共に、ネイルを取付けて端子コンタクト部保持用ハウジングの浮き上りを防止し、且つ端子テール保持ハウジングによって端子の位置出しを図っているもので、アッセンブリ後上記コンタクト部保持用ハウジングと端子テール保持ハウジングの間の連結部をカットする構造のものである。

従来技術の5は、電気コネクタ全体を平面からみて内と外に各々位置する内外ハウジングに分ち、即ち内側の端子コンタクト部保持用ハウジングと、外側のテール係止用ハウジングに分ち、この2つのハウジング間を可撓性のある連結部で連ね、ピッチズレを吸収可能にすると共に端子コンタクト部保持用ハウジングの浮き上りを防止し、且つテール部の位置出しは、上記テール係止用ハウジングによって行なっている構造のものである。

【0005】

【考案が解決しようとする課題】

(9)

実開平6-44063

即ち一方、他方のプリント回路基板の相互の位置が予め規定した位置に対してズレていて、嵌合時にピッチズレを吸収する時の変位荷重が比較的大きい問題がある。特に従来技術の1、従来技術の5がこれに該当する。

更にプリント回路基板上に於けるデットスペースが大である。

特に従来技術の1、従来技術の3、従来技術の4がこれに該当する。

加えて、付加部品の使用があつたり、部分部品のその廃棄が必要であつたりして、加工工数、組付工数が大となると共に節資源にもならない。特に従来技術の2がこれに該当する。

【0006】

【目的】

従って本考案の目的とする所は、一方、他方のプリント回路基板の相互の位置が予め規定した位置に対してズレていて、嵌合時にピッチズレを吸収する時の端子可撓連結部の変位荷重をより小とすることは勿論のこと、特にプリント回路基板上にデットスペースを生ずることなく、且つ付加部品を特別要することなくして、ピッチズレを吸収する為の端子の可撓連結部の損傷を防止し、即ち保護を図り得ると共に端子テール部の位置出しも容易に図れるプリント回路基板接続用電気コネクタを提供するにある。

【0007】

【課題を解決する為の手段】

上記目的を達成する為に本考案は次の技術的手段を有する。即ち実施例に対応する添付図面中の符号を用いてこれを説明すると、本考案は端子10のコンタクト部11を保持する為のコンタクト部ハウジング2と、このコンタクト部ハウジングとは別体の端子10のテール部12を保持する為のテール部ハウジング3を有し、複数端子の各々の端子10のコンタクト部11を上記コンタクト部ハウジング2に装着すると共に、テール部12をテール部ハウジング3に装着し、且つテール部12の近傍の圧入片22をテール部ハウジング3の係止溝28に圧入し、各端子10のコンタクト部11とテール部12間に可撓連結部13が形成され

(10)

実開平6-44063

部保護片18の先端21をテール部ハウジング3に形成した挿入溝30に、常態に於いて当該挿入溝30の壁31, 32に接触しないようにして挿入せしめた事の特徴とするプリント回路基板接続用電気コネクタである。

【0008】

【作用】

上記構成に基づく、嵌合時に於ける一方、他方のプリント回路基板、即ち一方、他方の電気コネクタの位置がズレていた場合のピッチズレの吸収は、端子10の可撓連結部13によって実施される。即ち変位荷重の大きいプラスチックモールド部分を有さないので変位荷重が小さい。且つ端子10のテール部12の位置出しは、圧入片22の先端23がテール部ハウジング3に係止溝28に圧入係止されていることにより、しっかり確保される。

とりわけ、この電気コネクタ1に対して他方の電気コネクタ35が嵌合接続された時、即ちこの電気コネクタ1の端子10に対して嵌合方向からの力が加わった時、可撓連結部13を上方へ変形させようとするが、可撓連結部保護片18の先端21の周りが挿入溝30の周壁32に突き当たり、上記の変形を抑制する。逆に、この電気コネクタ1から他方の電気コネクタ35を離す時、この電気コネクタ1の端子10に反嵌合方向の力が加わり、可撓連結部13が過剰に変形されようとするが、可撓連結部保護片18の先端21が挿入溝30の底壁31に突き当たり、上記の変形を抑制する。

【0009】

【実施例】

次に添付図面に従い本考案の実施例を詳細に説明する。

先ず図1～図7に従いこの実施例の電気コネクタ1の全体を説明すると、この電気コネクタ1はコンタクト部ハウジング2と、それとは別体のテール部ハウジング3を有している。図5, 図6, 図7から明らかなように、この実施例の場合、テール部ハウジング3の上面8上にコンタクト部ハウジング2が位置している。上記コンタクト部ハウジング2には端子のコンタクト部を装着する空間4が形成

(11)

実開平6-44063

そして、図1に最も明確に示されているように、コンタクト部ハウジング2の前面の左右には前方に突出した翼6A、6Bが一体形成されている。更にこのコンタクト部ハウジング2の後面の左右各々には、端部後部壁7A、7Bが形成されていて、この各後部壁7A、7Bがテール部ハウジング3の上面8の後部左右各々に一体的に立設せしめられた後部ストッパ9A、9Bに当接できる構造と成っている。

【0010】

次に図8、図9、図10に従い、この電気コネクタ1に装着する端子10について説明する。

端子10はコンタクト部11とテール部12を有する。

コンタクト部11はこの実施例では雄ピン形状を成している。そして上記コンタクト部11と上記テール部12は可撓連結部13によって一体的に連結されている。この可撓連結部13は、この例では図に於いて横向きになっている2つのU字状部14を直列に連ね、且つ図9に於いて上方に位置するU字状部14とコンタクト部11の間が直線部15によって連結されているものを示してある。

【0011】

そして、コンタクト部11と可撓連結部13の間16、より具体的にはコンタクト部11の後部17から可撓連結部保護片18が下方へ延出せしめられている。この可撓連結部保護片18は、図9に於いて垂直に延びる垂直部19と、それに一体に連なりコンタクト部11に対して平行に延びる水平部20より成り、水平部20の先が先端21として区画されている。

【0012】

他方、上記テール部12の近傍に上記可撓連結部13を構成する直線部15と平行となるように圧入片22を形成し、その圧入片の先端23は可撓連結部保護片18の水平部20の先端21が延びている所迄伸ばされている。

【0013】

而して符号24は上記コンタクト部11の根元部分の上下に形成されたコンタ

(12)

実開平6-44063

さて上記図8から図10迄に示した各端子10を上述した電気コネクタ1のコンタクト部ハウジング2とテール部ハウジング3に装着するには、図6、図7から明らかなように先ずコンタクト部11をコンタクト部ハウジング2のコンタクト部装着空間4内に装着し、テール部12をテール部ハウジング3の下面26から下方へ突出するようにしてテール部ハウジング3に装着する。この際、コンタクト部ハウジングの後部空間27中に上記の端子の可撓連結部13が位置する。

【0015】

所で、圧入片22の先端23はテール部ハウジング3の前面側の壁に形成された係止溝28中に圧入されるものの、テール部ハウジング3の上部空間29に延びる可撓連結部保護片18を構成する水平部20の先端21は、テール部ハウジング3の前面の壁に形成された挿入溝30に挿入される時、この端子10全体に負荷がかからない常態に於いては、挿入溝の底壁31にも、その周壁32にも接触しないようにして挿入されているものである。

【0016】

而して、この1つの端子10と、それに隣合う端子10とは、テール部12が交互千鳥配列になるようにハウジングに装着されるもので、図6はテール部ハウジング3の前側の壁に近い方にテール部12が表れる端子10が示され、図7はテール部ハウジング3の後部側に近い方にテール部12が表れる端子10が示されている。

【0017】

次に、図11に従いこの電気コネクタ1の用い方を説明する。

この図11に於いてはこの一方の電気コネクタ1が一方のプリント回路基板33に実装され、他方のプリント回路基板34に他方の電気コネクタ35が実装され、一方、他方の2つの電気コネクタの端子10と36が互いに接続している所が示されている。

所で一方のプリント回路基板33に対する他方のプリント回路基板34の位置が予め定められた位置に対して多少ズレていた場合、換言すれば一方、他方の電気

(13)

実開平6-44063

つの電気コネクタが嵌合接続する。この際コンタクト部ハウジング2とテール部ハウジング3は別体であり、端子の可撓連結部13のみが可撓するだけなので、ピッチズレ吸収時の変位荷重は小である。

【0018】

そして、端子のテール部12は、圧入片22の先端23が圧入溝28に圧入されているので、テール部12の位置出しはしっかりと確保されている。

【0019】

さて、この一方の電気コネクタ1に対し、他方の電気コネクタ35を嵌合する場合、即ち端子10のコンタクト部11に対して嵌合方向Xの力がかかった時、可撓連結部13は符号Zで示す上方向に変位しようとするが、可撓連結部保護片18の水平部20の先端21の周りが、挿入溝30の周壁32に当接し、上記の変位を抑制する。同じことは、この電気コネクタ1から、他方の電気コネクタ35を外す場合、端子10のコンタクト部11に対して反嵌合方向Yの力がかかり、可撓連結部13を過度に反嵌合方向Yに引張ろうとするが、先端21が挿入溝30の底壁31に当接し、これを抑制する。つまり可撓連結部保護片18と挿入溝30の協働により可撓連結部13の保護が成される。而も、この2つはコンタクト部ハウジング2とテール部ハウジング3中に収められ又は形成されているものであって、外部に突出するベグの如きものではないのでプリント回路基板上にデットスペースをつくらなと共に、付加部品でもないので組付工数が特になくともない。

【0020】

所で、この一方の電気コネクタ1に対し、他方の電気コネクタ35を嵌合する時、図1に示すように、この一方の電気コネクタ1のコンタクト部ハウジング2の左右後部壁7A、7Bがテール部ハウジング3の左右後部に於けるストッパー9A、9Bに当接するので、即ち過剰なコンタクト部ハウジング2の後方への変位を抑制するので端子10の可撓連結部13がこの構造によっても保護されると共に、コンタクト部ハウジング2に形成した左右の翼6A、6Bによって他方の

(14)

実開平6-44063

【0021】

而して可撓連結部13の形状は、以上の例の他に図12にて示すように1つのU字状部14と逆になっているU字状部14を直列に重ねたものでもよいものである。

【0022】

【効果】

以上詳述した如く、この考案によれば一方、他方のプリント回路基板の相互の位置が予め規定した位置に対してズレていて、嵌合時にピッチズレを吸収する時の端子可撓連結部の変位荷重をより小にできることは勿論のこと、特にプリント回路基板上にデットスペースを生ずることなく、且つ付加部品を特別要することなくして、ピッチズレを吸収する為の端子の可撓連結部の損傷を防止できると共に、端子テール部の位置出しも容易に図れるプリント回路基板接続用電気コネクタが提供できるものである。

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